

I. AMENDMENTS TO THE CLAIMS

Claims 1-8 (canceled)

Claim 9 (original): A method for producing pulsed power comprising:

closing at least two switches, said switches magnetically coupled to a first wire wrapped a plurality of turns around a toroid and said switches dividing said first wire into a plurality of first wire segments;

passing electrical current through said first wire thereby causing energy to be stored in a resultant magnetic field; and

actuating simultaneously said switches to increase the impedance of the portions of said first wire segments adjacent to said switches causing a pulse of said stored energy to flow from each of said portions of said first wire segments.

Claim 10 (original): The method of claim 9 wherein said pulse of energy flows through an energy blocking device to a load.

Claim 11 (original): The method of claim 10 wherein said current blocking devices are selected from the group consisting of diodes and spark gaps.

Claim 12 (original): The method of claim 11 wherein said at least two switches each comprise a plurality of turns of a second wire wrapped around a core of ferromagnetic material encircling said first wire and said actuation comprises applying an electrical trigger pulse to each second wire.

Claim 13 (original): A method for producing power comprising:

providing an inductor;

charging said inductor with a current to store energy in a magnetic field of the inductor;

and

opening a plurality of switches so as to electrically isolate a plurality of segments of the inductor and electrically discharge such segments in parallel.

Claim 14 (currently amended): The method of claim 13 wherein the inductor comprises a core and at least one conductor wrapped a plurality of turns around the core and wherein said plurality of switches each themselves comprise a switch inductor encircling the at least one conductor and wherein said opening comprises applying at least one electrical pulse to said switch inductors.

Claim 15 (original): The method of claim 14 wherein said at least one electrical pulse is a single pulse applied to said switch inductors in common.

Claims 16-21 (canceled)

Claim 22 (currently amended): A method for operating an opening switch device for increasing the impedance of a portion of a first conductor comprising:

providing a ferromagnetic core encircling the first conductor overwrapped by a plurality of turns of a second conductor;

directing a charging current through the first conductor effective to at least partially saturate the ferromagnetic core; and

directing a trigger current through the second conductor effective to drive the ferromagnetic core out of said at least partial saturation and thereby increase the impedance of a section of the first conductor encircled by the ferromagnetic core by a factor of at least ten.

Claim 23 (new): The method of claim 22, wherein the first conductor is wrapped around a second ferromagnetic core.

Claim 24 (new): A method for producing pulsed power comprising:

passing electrical current through a conductor forming a winding of at least one inductor, the conductor being disposed through a plurality of ferromagnetic cores;

increasing permeability of each of the ferromagnetic cores relative to the conductor to increase impedance in sections of the conductor proximate the ferromagnetic cores; and

diverting electric current in portions of the conductor between the sections of the conductor to a load after increasing the impedance in the sections of the conductor.

Claim 25 (new): The method of claim 24, wherein the impedance in each section of the conductor exceeds the impedance of the load.

Claim 26 (new): The method of claim 24, wherein permeability of each of the ferromagnetic cores relative to the conductor is increased in response to an electrical signal provided in a second conductor disposed through the second core.

Claim 27 (new): The method of claim 26, wherein the ferromagnetic cores are driven out of a state of at least partial saturation in response to the electrical signal.

Claim 28 (new): The method of claim 24, wherein the at least one inductor comprises: a plurality of inductors electrically connected in series, the conductor forming the winding of each inductor in the plurality of inductors.

Claim 29 (new): The method of claim 24, wherein the at least one inductor comprises: an inductor core, the conductor being wound around the inductor core.